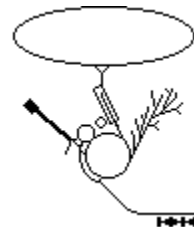


Collider Accelerator Department



## AUDIT REPORT

of the

### Collider Accelerator Department (C-A) ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

Performed by:

Signature on File

R. Savage, Lead Auditor

Signature on File

M. Van Essendelft, Lead Auditor

Date Submitted: May 10, 2004

Audit Dates: April 23, 2004

## 1.0 ASSESSMENT PURPOSE

This assessment was conducted to determine the conformance of Collider Accelerator Department's (C-A) Environmental Management System (EMS) to ISO 14001 and the effectiveness of its implementation.

## 2.0 ASSESSMENT SCOPE

The scope of the audit encompassed the Collider Accelerator Department, including all associated buildings/facilities, operations and activities. This assessment reviewed the C-A EMS program with respect to the following 8 of the 17 elements of ISO 14001:

Element 4.3.2	Legal and Other Requirements
Element 4.4.1	Structure and Responsibility
Element 4.4.2	Training Awareness and Competence
Element 4.4.3	Communication
Element 4.4.4	EMS Documentation
Element 4.4.7	Emergency Preparedness and Response
Element 4.5.3	Records
Element 4.5.4	EMS Audit

The audit reviewed the previous 2003 EMS Assessment and used a graded approach in reviewing activities. The following specific program areas were reviewed:

Refer to Attachment A, Assessment Plan for details.

## 3.0 SUMMARY

The C-A Department EMS conforms to the standards of ISO 14000:1996 for the 8 elements assessed within the scope of this audit. The EMS is effectively implemented throughout the organization, with strong managerial support that includes applicable funding for EMS related projects. The ESHQ Key Contacts and Operational Personnel interviewed are informed and have made good efforts in keeping their staff informed. The C-A staff has strong Management support for achieving EMS objectives and targets, which have been successfully integrated into their everyday activities through Operating Procedures and the Work Planning and Control Process.

This audit identified 1 Minor Nonconformance, 1 Observation (See definitions in next section) and 1 noteworthy practice. There were no nonconformances or observations identified during the 2002 EMS Assessment that required corrective and preventive actions.

Refer to Attachment B (Assessment Checklist) for the details of the assessment.

## 4.0 NONCOMPLIANCES, NONCONFORMANCES, OBSERVATIONS, AND OPPORTUNITY FOR IMPROVEMENT

### Definition of Terms

#### **Noncompliance**

Nonadherence to an applicable regulatory requirement.

#### **Nonconformance**

Objective evidence exists that a requirement has not been addressed (intent), a practice differs from the defined system (implementation), or the system is not effective (effectiveness).

- Major Nonconformance – A system element is missing, not implemented or not effective.
- Minor Nonconformance - A single observed lapse in a procedure or requirement. Overall system requirement is defined, implemented and effective.

**Noteworthy practice**

Performance that exceeds expectations in terms of efficiency and/or effectiveness and provides a model for others to follow. A noteworthy practice is a positive condition or strength.

**Observation**

Not a nonconformance, but something that could lead to a nonconformance, if allowed to continue uncorrected; or an existing condition without adequate supporting evidence to verify that it constitutes a nonconformance.

**Opportunity for Improvement**

A suggested means of accomplishing an activity, or fulfilling the intent of a procedural requirement. A recommendation may be made when the assessor wishes to see an improvement in a condition that is not considered to be a finding or observation.

**4.1 Noncompliance: (Minor)**

The C-A Self Assessment Plan has not been developed in accordance with the SBMS Subject Area which requires that the Self Assessment Plan be completed during the first quarter of the fiscal year (December 31, 2004).

**4.2 Observation:**

C-A OPM 13.3.2, Nonconformance and Corrective and Preventive Action procedure needs to be revised to reflect the new implementation of the two (2) new SBMS Subject Areas, Nonconformance and Corrective Actions.

**4.3 Opportunity for Improvement: (None)****4.4 Noteworthy Practice:**

1. C-A personnel training average is at 99% complete. In addition, all JTA's have been developed for environmental systems.

**5.0 ASSESSMENT RESOLUTIONS**

A closeout meeting was held on April 26, 2004. The audit team presented a summary of the assessment and the associated findings. The minor nonconformance will be tracked on the C-A family ATS program until closure.

**6.0 LIST OF ATTACHMENTS:**

- Attachment A – Assessment Plan
- Attachment B – Assessment Checklist
- Attachment C – Personnel Interviewed

# Attachment A

## COLLIDER-ACCELERATOR ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) ASSESSMENT PLAN

**ASSESSMENT OBJECTIVE:** Evaluate the Collider-Accelerator Department's EMS program for conformance to the ISO 14001 Standard and the BNL EMS in preparation for the NSF ISO 14001 registration audit scheduled for June 7-11, 2004.

**ASSESSMENT SCOPE:** The scope of the audit will encompass the Collider Accelerator Department, (AGS, RHIC and TDVG) including all associated buildings/facilities, operations and activities. This audit will assess the following 8 of the 17 ISO 14001 elements:

Element 4.3.2	Legal and Other Requirements
Element 4.4.1	Structure and Responsibility
Element 4.4.2	Training Awareness and Competence
Element 4.4.3	Communication
Element 4.4.4	EMS Documentation
Element 4.4.7	Emergency Preparedness and Response
Element 4.5.3	Records
Element 4.5.4	EMS Audit

**ASSESSMENT CRITERIA:** ISO 14001:1996 and BNL EMS Assessment Checklist

### **ASSESSMENT TEAM & QUALIFICATIONS:**

R. Savage, Trained ISO 14000 Lead Auditor  
M. Van Essendelft, Trained ISO 14000 Lead Auditor

### **ASSESSMENT STRATEGY:**

The audit will evaluate 8 of the 17 ISO 14001:1996 elements, which will be reviewed using the C-A EMS Audit Checklist with focus on the following:

- a review of the C-A EMS system and its application of the Laboratory EMS Policy commitments.
- a review of the C-A EMS system and its compliance to regulatory issues.
- a review of the deployment of C-A Operational Procedures related to its EMS program.
- a review of compliance records and operational records associated with the C-A EMS.
- a review of C-A Management Review and incorporation of management decisions into the EMS program and closure of EMS Corrective Actions
- A review of the field operations for the following processes: RF Systems and Instrumentation and Beam Components.

# Collider-Accelerator ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) ASSESSMENT PLAN

## Schedule

**AUDIT DATE(s):** April 23, 2004

**AUDIT SCOPE:** Annual EMS Audit

**AUDIT CRITERIA:** ISO 14001:1996

**AUDIT TEAM:** R. Savage and M. Van Essendelft

<b>TIME</b>	<b>Activity/ Contact Person</b>	<b>Requirement (Clause/sub-clause)</b>
9:00a	Environmental Compliance Representative	Legal & Other Requirements (4.3.2)
9:30a	C-A EMS Management Representative	Structure & Responsibility (4.4.1)
10:15a	C-A Training Manager	Training Awareness & Competence (4.4.2)
11:15a	C-A EMS Management Representative	Communication (4.4.3)
11:45a	C-A Quality Manager	EMS Documentation (4.4.4)
1:00p	ESHQ Division Head, C-A Safety Engineer	Emergency Preparedness (4.4.7)
1:30p	C-A Quality Manager	Records (4.5.3)
1:45p	C-A Quality Manager	Audits (4.5.4)
2:00p	Field Walkdown / Personnel Interviews as appropriate	Observe Work Tasks
4:00p	Audit Close-out with Management	

## **Attachment B**

### **COLLIDER-ACCELERATOR ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) ASSESSMENT CHECKLIST**

## **Attachment C**

### **COLLIDER-ACCELERATOR ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PERSONNEL LISTING**

<b>List of Personnel Interviewed</b>	<b>Responsibility</b>
P. Cirnigliaro	ESHQ Safety Engineer
R. Karol	ESHQ Division Manager
D. Lehn	Instrumentation and Beam Components Technical Supervisor
E. Lessard	Associate Chair ESHQ, EMS Management Representative
D. Passarello	Quality Manager
M. Van Essendelft	Environmental Compliance Representative

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>PLANNING</b>	
<b>ELEMENT:</b>	4.3.2	<b>TITLE:</b>	Legal and Other Requirements
<b>ISO 14001 STANDARD:</b>			
		<b>NO</b>	<b>PARTIAL</b>
The organization shall establish and maintain a procedure to identify and have access to legal and other requirements to which the organization subscribes, that are applicable to the environmental aspects of its activities, products or services.		<input type="checkbox"/>	<input type="checkbox"/>
<b>YES</b>			
<input checked="" type="checkbox"/>			
<b>FACILITY IMPLEMENTATION OF STANDARD:</b>			
<p>Legal requirements come from external agencies to Laboratory level personnel. These requirements are communicated through the generation of subject areas. Cognizant C-A personnel have subscribed to the SBMS subscription Service that notifies users of new and updated subject areas. The C-A Department ECR also, as part of his job function, makes sure that the department is made aware of new requirements and works to assure department compliance to these requirements. The C-A EMP's list legal &amp; other requirements as applicable. The ECR ensures the incorporation of new requirements as a member of the ASSRC and ESRC and through incorporation of new requirements into the process assessments.</p>			
<b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b>			
<p>OPM 1.10.2  C-A Environmental Management Procedures (EMP)  SBMS Subject Area  Subscribe to SBMS subscription service  C-A ECR and SBMS Subject Matter Experts</p>			
<b>COMMENTS:</b>			
<b>EVALUATION:</b>			
MEETS REQUIREMENT		MINOR	MAJOR NONCONFORMANC
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NONCONFORMANCE	<input type="checkbox"/>
<b>OPTIONAL AUDITOR QUESTIONS:</b>			
<p>Is there a documented procedure for the organization to identify and have access to all applicable legal requirements?  Is someone (or more than one) designated to keep unit current on requirements?  What are that persons resources, references, methods to keep current?  How is applicability of new requirements determined?</p>			



# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>IMPLEMENTATION AND OPERATION</b>		
<b>ELEMENT:</b>	4.4.1	<b>TITLE:</b>	Structure and Responsibility	
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>	<b>YES</b>
<p>Roles, responsibility and authority shall be defined, documented and communicated in order to facilitate effective environmental management.</p> <p>Management shall provide resources essential to the implementation and control of the environmental management system. Resources include human resources and specialized skills, technology and financial resources.</p> <p>The organization's top management shall appoint (a) specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for</p> <ul style="list-style-type: none"> <li>a.) ensuring that environmental management system requirements are established, implemented and maintained in accordance with this International Standard;</li> <li>b.) reporting on the performance of the environmental management system to the top management for review and as a basis for improvement of the environmental management system.</li> </ul>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>FACILITY IMPLEMENTATION OF STANDARD:</b>				
<p>Management has committed the appropriate resources and is accountable for those actions during the monthly Department Chairman's meeting and the annual Management Review in addition to the weekly meetings scheduled per OPM 2.28 that culminate in the C-A Time Meeting. General and/or specific EMS responsibilities are documented on departmental personnel's' R2A2. An EMS "core" team works within the department to assure implementation of the C-A EMS.</p>				
<b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b>				
<p>R2A2's (Top Management, C-A EMS representative and EMS team)</p> <p>OPM 1.10</p> <p>OPM 1.10.2</p> <p>OPM 13.1.1</p>				
<b>COMMENTS:</b>				
None				
<b>EVALUATION:</b>				
MEETS REQUIREMENT		MINOR		MAJOR NONCONFORMANCE
<input checked="" type="checkbox"/>		<input type="checkbox"/> NONCONFORMANCE		<input type="checkbox"/>
<b>OPTIONAL AUDITOR QUESTIONS:</b>				
<p>Are roles and responsibility, and authorities defined, documented and communicated?</p> <p>Has management provided the necessary resources (people, technology, money) to accomplish this EMS?</p> <p>Has top management appointed an environmental management representative?</p> <p>Does the R2A2 of the environmental management representative document sufficient authority to accomplish a &amp; b above?</p>				

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>IMPLEMENTATION AND OPERATION</b>	
<b>ELEMENT:</b>	4.4.2	<b>TITLE:</b>	Training, Awareness and Competence
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
<p>The organization shall identify training needs. It shall require that all personnel, whose work may create a significant impact upon the environment, have received appropriate training.</p> <p>It shall establish and maintain procedures to make its employees or members at each relevant function and level aware of</p> <ul style="list-style-type: none"> <li>a.) the importance of conformance with the environmental policy and procedures with the requirements of the environmental management system;</li> <li>b.) the significant environmental impacts, actual or potential, of their work activities and the environmental benefits of improved personal performance;</li> <li>c.) their roles and responsibilities in achieving conformance with the environmental policy and procedures with the requirements of the environmental management system, including emergency preparedness and response requirements;</li> <li>d.) the potential consequences of departure from specified operating procedures.</li> </ul> <p>Personnel performing the tasks which can cause significant environmental impacts shall be competent on the basis of appropriate education, training and/or experience.</p>		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>FACILITY IMPLEMENTATION OF STANDARD:</b>			
<p>The C-A department has developed job specific training for each of the process evaluations. This training deals with each one of the items (a-d) listed above. The Job Training Assessment (JTA) specifies if this training is a requirement for an employee to perform their job. In addition to this training, 99% of C-A personnel have completed the BNL General Environmental Training Course. The C-A department has also conducted EMS awareness forums with those individuals whose work has a potential to impact the environment.</p>			
<b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b>			
OPM 1.12, C-A JTA's, BTMS, C-A EMS job specific training procedures, BNL General Environmental Training Course			
<b>COMMENTS: Noteworthy Practice:</b> Review identified personnel training average is at 99% complete. JTA's have been developed for environmental systems.			
<b>EVALUATION:</b>			
<b>MEETS REQUIREMENT</b>	<b>MINOR</b>	<b>MAJOR NONCONFORMANCE</b>	
<input checked="" type="checkbox"/>	<input type="checkbox"/> NONCONFORMANCE	<input type="checkbox"/>	
<b>OPTIONAL AUDITOR QUESTIONS:</b>			
<p>Have training needs been identified for those whose work can have a significant impact on the environment?</p> <p>Has the appropriate training been done and, where required, by qualified trainers?</p> <p>Are procedures established and maintained to make employees aware of a – d above?</p> <p>Are there specific, documented minimum requirements for each person performing a task that can cause significant environmental impact?</p>			

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>IMPLEMENTATION AND OPERATION</b>	
<b>ELEMENT:</b>	4.4.3	<b>TITLE:</b>	Communication
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
<p>With regard to its environmental aspects and environmental management system, the organization shall establish and maintain procedures for:</p> <ul style="list-style-type: none"> <li>a.) internal communication between the various levels and functions of the organization;</li> <li>b.) receiving, documenting and responding to relevant communication from external interested parties.</li> </ul> <p>The organization shall consider processes from external communication on its significant environmental aspects and record its decision.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>FACILITY IMPLEMENTATION OF STANDARD:</b> Internal communication is performed through various means but much of this is grounded in the work planning process, which follows planned weekly meetings throughout the department. It is at these meetings where relevant information regarding EMS and information specific to a particular job or process is communicated. OPM 2.28 has an attachment that details weekly meeting. Additionally, internal communications come in the form of formal memos, e-mail, newsletters, monthly/weekly Group meetings, SBMS Subscription Service, TIER I process, ATS notifications and responses and web postings. External communications are channeled through the BNL public affairs (SIGPA), other community action committees (BER, CAC), and are documented through the CCTS where applicable.</p>			
<p><b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b></p> <p>OPM 2.12  C-A Web site, C-A newsletter, CAC meetings  CCTS  OPM 1.10.2 and 1.10.2.c</p>			
<p><b>COMMENTS:</b> None</p>			
<b>EVALUATION:</b>			
MEETS REQUIREMENT	MINOR NONCONFORMANCE	MAJOR NONCONFORMANCE	
■	□	□	
<p><b>OPTIONAL AUDITOR QUESTIONS:</b></p> <p>Are there procedures and records that are maintained for communications and activities regarding the company's environmental aspects and its overall EMS?</p> <p>How are internal communications between different levels and different functions documented?</p> <p>How are the receiving, documenting and responding to relevant questions from interested parties documented?</p>			

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>IMPLEMENTATION AND OPERATION</b>	
<b>ELEMENT:</b>	4.4.4	<b>TITLE:</b>	Environmental Management System Documentation
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
The organization shall establish and maintain information, in paper or electronic form, to: <ul style="list-style-type: none"> <li>a.) describe the core elements of the management system and their interaction;</li> <li>b.) provide direction to related documentation.</li> </ul>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>FACILITY IMPLEMENTATION OF STANDARD:</b> The C-A Environmental Management Program Description details how the C-A EMS program is implemented through use of the BNL SBMS and the C-A Operational Procedures Manual. The Contacts and Responsibilities attachment gives pertinent information regarding individuals responsible at the department as well as the laboratory level. The Document Flow-down matrix gives a detail of the various documents of the C-A EMS.			
<b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b> OPM 1.10.2 – Environmental Management Program Description OPM 1.10.2.a – C-A Organization Chart OPM 1.10.2.b – C-A EMS Contacts and Responsibilities OPM 1.10.2.c – C-A EMS Flow-down Document Matrix OPM 1.10.2.d – C-A Environmental Management Matrix of Objective and Targets for Significant Aspects Form BNL ISO 14001 “Plus” EMS Manual SBMS Subject Area – Self Assessment			
<b>COMMENTS:</b> The following elements were noted during the audit: <ul style="list-style-type: none"> <li>1. (Minor Nonconformance) The C-A Self Assessment Plan has not been developed in accordance with the SBMS Subject Area which requires that the Self Assessment Plan be completed during the first quarter of the fiscal year (December 31, 2004).</li> <li>2. (Observation) C-A OPM 13.3.2, Nonconformance and Corrective and Preventive Action procedure needs to be revised to reflect the new implementation of the two (2) new SBMS Subject Areas, Nonconformance and Corrective Actions.</li> </ul>			
<b>EVALUATION:</b>			
<b>MEETS REQUIREMENT</b> <input type="checkbox"/>	<b>MINOR</b> <input checked="" type="checkbox"/> <b>NONCONFORMANCE</b>	<b>MAJOR NONCONFORMANCE</b> <input type="checkbox"/>	
<b>OPTIONAL AUDITOR QUESTIONS:</b> How is the department’s EMS documented and maintained? Does the EMS documentation address all ISO 14001 clauses? Is there organizational flow and continuity between all EMS documentation? Does the system document how the related documentation [regulations, permits, forms, etc.] is to be used?			

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>IMPLEMENTATION AND OPERATION</b>	
<b>ELEMENT:</b>	4.4.7	<b>TITLE:</b>	Emergency Preparedness and Response
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
<p>The organization shall establish and maintain procedures to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.</p> <p>The organization shall review and revise, where necessary, its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.</p> <p>The organization shall also periodically test such procedures where practicable.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>FACILITY IMPLEMENTATION OF STANDARD:</b> The emergency preparedness and response procedures for C-A are documented in Chapter 3 of the Operations Procedure Manual.</p>			
<p><b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b> OPM 3.0</p>			
<p><b>COMMENTS:</b> A drill to test emergency preparedness was performed by C-A in September, 2003. The results are documented in the C-A Environmental Program Support File. Procedural changes and training recommendations resulted from the drill and are being tracked in the C-A Family ATS.</p>			
<b>EVALUATION:</b>			
<p><b>MEETS REQUIREMENT</b> <input type="checkbox"/></p>	<p><b>MINOR</b> <input checked="" type="checkbox"/> <b>NONCONFORMANCE</b></p>	<p><b>MAJOR NONCONFORMANCE</b> <input type="checkbox"/></p>	
<p><b>OPTIONAL AUDITOR QUESTIONS:</b>          Are there maintained procedures to identify potential for accidents and emergency situations?          Are there maintained procedures to respond to accidents and emergency situations?          Are there maintained procedures to prevent and minimize the environmental impacts that may be associated with the identified accidents and emergency situations?          Are there reviews and revisions of the emergency preparedness and response procedures, particularly after an incident?          Are there periodical tests of the above procedures?</p>			

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>CHECKING AND CORRECTIVE ACTION</b>	
<b>ELEMENT:</b>	4.5.3	<b>TITLE:</b>	Records
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
<p>The organization shall establish and maintain procedures for the identification, maintenance and disposition of environmental records. These records shall include training records and the results of audits and reviews.</p> <p>Environmental records shall be legible, identifiable, and traceable to the activity, product or service involved. Environmental records shall be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded.</p> <p>Records shall be maintained, as appropriate to the system and to the organization, to demonstrate conformance to the requirements of this International Standard.</p>		<input type="checkbox"/>	<input type="checkbox"/>
<p><b>FACILITY IMPLEMENTATION OF STANDARD:</b> Records are maintained in accordance with the SBMS Records Management subject area. Departmental level procedures that supplement the SBMS are C-A-OPM 13.4.1 – Records Management, and C-A-OPM 13.4.2 – Records Index. The Records Index has a specific attachment detailing the EMS Records with the C-A Department. This index lists the name of the record, the record custodian, the record schedule and the retention.</p>			
<p><b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b>          SBMS Records Management SA          C-A-OPM 13.4.1          C-A-OPM 13.4.2</p>			
<p><b>COMMENTS:</b> None</p>			
<p><b>EVALUATION:</b></p>			
MEETS REQUIREMENT	MINOR		MAJOR NONCONFORMANCE
■	<input type="checkbox"/> NONCONFORMANCE		<input type="checkbox"/>
<p><b>OPTIONAL AUDITOR QUESTIONS:</b>          Are procedures documented and maintained for the identification, maintenance and disposition of environmental records?          Are the records legible, identifiable and traceable to the activity, product or service involved?          Are the records stored and maintained such that they are readily retrievable and protected against damage, deterioration or loss?          Are there documented specified retention times for all of the records identified?          Are the records maintained in a manner to demonstrate accordance with the standard and appropriate to the system and the organization?</p>			

# Collider Accelerator EMS Assessment

## ISO 14001

Date: April 23, 2004

Lead Auditors: R. Savage / M. VanEssendelft

Environmental Management System Model		<b>CHECKING AND CORRECTIVE ACTION</b>	
<b>ELEMENT:</b>	4.5.4	<b>TITLE:</b>	Environmental Management System Audit
<b>ISO 14001 STANDARD:</b>		<b>NO</b>	<b>PARTIAL</b>
<p>The organization shall establish and maintain (a) program(s) and procedures for periodic environmental management system audits to be carried out, in order to:</p> <ul style="list-style-type: none"> <li>a.) determine whether or not the environmental management system               <ul style="list-style-type: none"> <li>1.) conforms to planned arrangements for environmental management, including the requirements of this International Standard; and</li> <li>2.) has been properly implemented and maintained; and</li> </ul> </li> <li>b.) provide information on the results of audits to management.</li> </ul> <p>The organization's audit program, including any schedule, shall be based on the environmental importance of the activity concerned and the results of the previous audits. In order to be comprehensive, the audit procedures shall cover the audit scope, frequency and methodologies, as well as the responsibilities and requirements for conducting audits and reporting results.</p>		<input type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/>	
<p><b>FACILITY IMPLEMENTATION OF STANDARD:</b> The EMS audit is scheduled and performed in accordance with the C-A Department FY2003 Self-Assessment Program. The C-A QA group maintains a database of audit schedules as well as audits and audit reports. Audits are conducted in accordance with the SBMS Environmental Assessments subject area and OPM 1.10.2. An Audit Plan was generated as well as an Audit Schedule and Audit Notification. In addition, operating procedures are reviewed on a 3-year cycle to ensure they reflect current operating conditions</p>			
<p><b>EXISTING PROCEDURES AND DOCUMENTATION (LIST):</b></p> <p>OPM 1.10.2          SBMS Environmental Assessments SA          C-A-QAP-1001 Independent Assessment          C-A Department FY 2003 Self-Assessment Program</p>			
<p><b>COMMENTS:</b> None</p>			
<b>EVALUATION:</b>			
<b>MEETS REQUIREMENT</b> <input checked="" type="checkbox"/>	<b>MINOR</b> <input type="checkbox"/> <b>NONCONFORMANCE</b>	<b>MAJOR NONCONFORMANCE</b> <input type="checkbox"/>	
<p><b>OPTIONAL AUDITOR QUESTIONS:</b></p> <p>Are procedures documented and maintained for periodic EMS audits?</p> <p>Does the procedure for EMS audits include the scope of the audit, frequency, methodologies used, responsibilities, requirements, and method of reporting results?</p> <p>Does the EMS audit determine whether their EMS has been implemented and maintained and conforms to this standard?</p> <p>Does the EMS audit provide results of the audits to management?</p>			